



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Confirmation No.: 8417

Dieter Sauter et al.

Art Unit: 2876

Application No.: 10/500,918

Examiner: Haupt, Kristy A.

Filed: January 26, 2005

Attorney Dkt. No.: 028605-00001

For: VALUABLE DOCUMENT OR SECURITY DOCUMENT COMPRISING  
A SWITCH

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Date: July 20, 2006

Sir:

Pursuant to 37 CFR §1.56, the attention of the Patent and Trademark Office is hereby directed to the information item(s) listed on the attached Form PTO-SB08. Unless otherwise indicated herein, one copy of each item(s) is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the item(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

- ☒ 1. This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection or Notice of Allowance.
- ☐ a. I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(1).
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- ☒ c. A check in the amount of \$180.00 in payment of the fee under 37 CFR §1.17(p). Please charge any fee deficiency or credit any overpayment to Deposit Account No. 01-2300 as needed to ensure consideration of the disclosed information.

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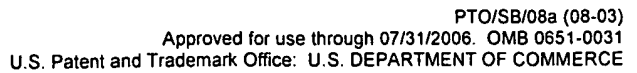
- ☒ 2. A concise explanation of the relevance of the non-English language references Cite Nos. 05, 14, 16 and 17 appears in the Appendix attached hereto.
- ☒ 3. English-language Abstracts of EP 1134694, DE 19818710 and DE 19716343 are attached hereto.
- ☒ 4. For the Examiner's convenience, DE 19714343 corresponds to US Pat. No. 6,274,736 to Lange et al.; DE 19805282 corresponds to US Pat. No. 6,414,441 to Fries et al.; DE 69509783 corresponds to US Pat. No. 5,641,164 to Doederlein; DE 4220762 corresponds to GB 2,257,091; and DE 19716343 corresponds to US Pat. No. 6,310,280 to Aigner et al.

Respectfully submitted,



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Enclosures: Appendix; PTO/SB/08a and SB/08b w/12 references



**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
Form PTO/SB/08a

Application Number	10/500,918
Filing Date	January 26, 2005
First Named Inventor	SAUTER et al.
Art Unit	2876
Examiner Name	HAUPT, Kristy A.
Attorney Docket Number	028605-00001

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[illegible][illegible]Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code. <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached. AB indicates that only an English language abstract is attached.

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO

**Complete if Known**

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## APPENDIX

### **“Faltlautsprecher für die Hosentasche”**

The document “Faltlautsprecher für die Hosentasche” comprises the information that researcher at the Thin Film Research Center of the Korean Institute of Science and Technology have developed a loudspeaker having the form of a foil which is so thin that it can be coiled up and taken in the trouser pocket. The loudspeaker is formed using a piezo electrical material which is not thicker than paper. The further explanations concern piezo electrical films and ceramics and their properties as well as the discussion of the problem of thin loudspeakers that they are not able to reproduce sound at lower frequencies (bass frequencies). The state of the art document is therefore not relevant to the present invention.

### **DE 69 00 274 (Corresponds to DE 37 288)**

In the document DE 69 00 274 U a thermo generator is described. In thermo generators usually thermo elements are accommodated in the way that the hot and the cold brace points are situated in one area, respectively, namely the hot side or the cold side of the thermo generator. Each thermo element consists of a pair of legs with thermo electric material with different thermo electric voltage. The document describes a thermo generator with a low power output and small cross-section of the legs of the thermo elements. Therefore, the thermo elements are produced by vapour deposition of the legs onto an electric isolator. The document shows and describes in detail the structure of such a thermo generator and is therefore not relevant to the above invention of Bundesdruckerei GmbH.

### **“Polytronic: Chips von der Rolle”**

In the document “Polytronic: Chips von der Rolle” new developments in electro technical engineering are described and shown from a very general point of view as summarized in the following.

It is known that plastic material is electroconductive and is able to send out electromagnetic radiation. Polytronic is the name of a technology using plastic material in chips and other elements of an electric circuit like displays or batteries which is given to the technology by researchers of the Fraunhofer Institute. Polytronic technology opens the door to cheap mass production of electronic elements in order to provide all everyday things with an electronic identity. The article describes different applications of the new material and its advantages.

At first the document focuses to the application that complete chips are developed on the basis of polymers. The possibility was already shown by OLED-Displays, foil batteries and chips made of plastic material. Thereby the Polytronic technology does not compete with the silicon technology because electroconductive plastic material form only very slow electronic elements because of the low carrier mobility – they are more than 100 times slower than silicon chips. The advantage of these polymers is that they can be used when electronic elements have to be flat, flexible or cheap. Chips made of plastic material may be applied to greeting cards, paper

toys, chip cards with display or identification tags, electronic newspapers or foil computers. With regard to the above invention the document discloses on page 10, second column, first paragraph that chips made of plastic material can be embedded in paper. In the third column of this page is described that most polymers are able to dissolve very well so that electric circuits can be printed. The structure with thicknesses of some 10  $\mu\text{m}$  can be produced in this way. On page 11, first column, first paragraph it is mentioned that electronic circuits, displays or even sensors can be printed onto paper. Researcher of the Fraunhofer Institute also follow this direction and are developing procedures to print organic electronic directly onto the packages. The paragraph bridging the first and second column on this page discloses that polymers made by screen printing are optimally suited for the cheap production of mass products like electronic tags, security elements for documents and identification systems of objects.

The second beginning on page 11, second paragraph of the third column illustrates developments with regard to organic displays.

The last section beginning on page 12, column 2, paragraph 4 describes that the power supply of mobile devices is another application of electroconductive plastic material. Main topics of research and development with regard to this field are rechargeable lithium polymer batteries, paper thin primary batteries and innovative battery management ICs for small electronic devices. On page 12, third column, third paragraph it is described that the company SRI International in Menlo Park, California, has developed a shoe which produces an electrical current. During walking the mechanical deformation of the sole is converted into electrical energy by newly developed plastic material. It is further said that researcher succeeded to produce solar cells by screen printing.

In our opinion although this document shows many applications of electroconductive plastic material in general this document is not relevant to the invention because it does not disclose a value or security document with a circuit provided with a break adapted to be closed by a conducting element.